UNITED STATES PATENT AND TRADEMARK OFFICE

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10/039,047	12/31/2001	Lee Friedman	7780-001155	2287

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EXAMINER
STRANGE, AARON N

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *17 December 2008*.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *6,9,10,13,19,36 and 39* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *6,9,10,13,19,36 and 39* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a) ☐ All   b) ☐ Some *   c) ☐ None of:
       1. ☐ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____.
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 6, 9, 13, 19, 36 and 39 have been

considered but are moot in view of the new ground(s) of rejection.

Response to Amendment

2.   Applicant's amendments to claims 36 and 39 are sufficient to overcome the

objection to the specification set forth in the Office action of 9/17/08 (§3).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 6, 9, 13, 19, 36 and 39 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Wang (US 6,693,912) in view of Bahadiroglu (US 2002/0186660)

further in view of Huang (US 6,618,397) further in view of Bunker et al. (US

2003/0055594) further in view of Sahai et al. (US 6,594,699).

5.   With regard to claims 6 and 13, Wang disclosed a method executed by multiple

dispersed devices (Figure 1, gateways to between to the two end users) for adapting

data received from a remote sending device in a single heterogeneous network (fig. 1)

according to quality of service parameters associated with a plurality of network

segments (e.g. each segment between the gateways in figure 1) that are downstream

from the dispersed devices, comprising:

- ❏ receiving at the disbursed devices instructions, wherein the instructions

  instruct the disbursed devices to adapt the data (e.g. each network 2A, 3A,

  3B, and 2B is configured with their own QoS parameters that are used to

  adapt the data as it flows from network to network, see inter alia Col 3, lines

  1-17 – "it will be assumed that each of these four network has a different QoS

  system," Col 3, lines 56-61, Col 4, lines 5-14, and Col 5, lines 32-38 - "each

  network can introduce new QoS technology");

- ❏ receiving the data from the remote sending device (e.g. the end nodes can

  send data to each other, Figure 1 and Col 4, lines5-14);

- ❏ adapting the data to conform to the quality of service parameters associated

  with each network segment downstream from the one of the dispersed

  devices therein adapting the data at the dispersed devices rather than

  adapting the data at the remote sending device wherein the dispersed

  devices are located between the remote sending device and the plurality of

  network segments (adapting to data to the QoS specifications of each

  network as it pass through each network, such as "traffic parameters and

  other QoS parameters," (again refer to inter alia Col 3, lines 1-17, lines 56-

  61, Col 4, lines 5-14, and Col 5, lines 32-38),

❑ transmitting the adapted data along each network segment to one of a

plurality of segment endpoints where the segment endpoints (e.g. gateways

and end user clients) comprise at least one recipient client and at least one

sub-segment dispersed device that further adapts the data previously

adapted to conform the data according to quality of service parameters

associated with a network sub-segment adjacent and downstream from the at

least one of the plurality of segment endpoints comprising the sub-segment

dispersed device; (again the data is further adapted as it pass through each

network). ,

❑ wherein values for the quality of service parameters vary among the plurality

of network segments (col. 3, ll. 1-17).

Wang failed to specifically recite requesting new programming for adapting the

data upon detecting changes in the quality of service parameters for each network

segment or implementing a compression mechanism in response to a determination

that a packet size of the data exceeds a MTU of each network segment, or that the

single heterogeneous network includes the specific plurality of sub-networks claimed,

although Wang does teach that the single heterogeneous network comprises a plurality

of sub-networks (fig. 1, 2A, 2B, 3A, 3B)(col. 3, ll. 1-10). Wang also fails to specifically

disclose that the dispersed devices (active gateways) are file servers.

Bahadiroglu disclose a similar a system for transmitting data between sending

and receiving nodes (abstract). Bahadiroglu teaches requesting new programming for

adapting the data upon detecting changes in the quality of service parameters for each

network segment (i.e. adjusting the packet size and inter-packet interval in real time

according to bandwidth restrictions of the network segment such as latency, jitter and

traffic conditions ¶ 71). This would have been an advantageous addition to Wang's

system to ensure utilization of the available bandwidth is maximized (Bahadiroglu ¶71).

Huang also discloses a similar system for transmitting data between sending and

receiving nodes. Huang teaches implementing a compression mechanism in response

to a determination that a packet size of data to be transmitted exceeds a MTU of the

network segment (GIEC packet is reduced in size if it exceeds the MTU for the network

segment)(col. 13, ll. 11-20; col. 14, ll. 48-65). This would have been an advantageous

addition to the system disclosed by Wang and Bahadiroglu since it would have

prevented packets from being fragmented, reducing overhead in processing and

bandwidth (Huang, col. 5, ll. 4-9).

Bunker discloses many well-known types of networks, including peer-to-peer

and client/server network types (¶14, ll. 14-16), a combination of local and wide area

networks (¶14, ll. 3-7), and a hybrid combination of physical and logical network

constructions, the physical and logical network constructions including broadcast (radio

wave) (¶14, ll. 6-7), network bus, network ring, and logical star constructions (¶14, ll. 10-

11). One of ordinary skill in the art would have recognized that any or all of these well-

known network types could have been used in place of the sub-networks taught by

Wang. It would have been advantageous to do so since it would have provided

consistent quality of service over those network types.

Sahai teaches the use of file servers (media servers) to provide clients with access to media files and customize content according to client capabilities and user specifications (col. 5, ll. 41-46; col. 6, ll. 12-21). This would have been an advantageous addition to the system disclosed by Wang since it would have allowed the active gateways to customize content according to the capabilities and preferences of the end user devices, allowing differing devices to communicate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to request new programming for adapting the data upon detecting changes in QoS parameters as well as implementing a compression mechanism to reduce the size of a packet to be transmitted to prevent fragmentation, since these modifications would have ensured maximum bandwidth utilization, to combine various network types to form a single heterogeneous network for communications, and to use file servers to provide content to the end user devices that is customized according to client preferences and capabilities.

6.   With regard to claims 9, 19 and 39, Wang discloses that adapting the data further comprises replicating the data (the content is never changed, just the form of the content changes).

7.   With regard to claim 36, in addition to the limitations already addressed regarding claims 6 and 13, Wang further discloses translating a protocol of the data according to

protocol requirements of the network segment (each segment has its own protocol

stack)(col. 3, ll. 5-10)

8.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang

(US 6,693,912) in view of Bahadiroglu (US 2002/0186660) further in view of Huang (US

6,618,397) further in view of Bunker et al. (US 2003/0055594) further in view of Sahai et

al. (US 6,594,699) further in view of Official Notice.

9.   With regard to claim 10, while the system disclosed by Wang, Bahadiroglu,

Huang, Bunker and Sahai shows substantial features of the claimed invention

(discussed above), it fails to specifically disclose transmitting the quality of service

parameters from the device to a network administrator.

        The Examiner takes Official Notice that it was widely known in the art at the time

of Applicant's invention to transmit the parameters of networking devices on a network

to the administrator of that network so that the administrator can monitor, repair, and

configure the network as needed.

        Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to transmit the parameters to a network administrator to

permit monitoring, repair and reconfiguration of the network as needed.

Conclusion

10.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to AARON STRANGE whose telephone number is

(571)272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron Strange/
Examiner, Art Unit 2453